

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

- 1-20. (Canceled).
21. (New) Threaded bolt for use in ultrasonic measurement for determining the tension in the threaded bolt after it has been used in a connection having a proximal head end and a distal insertion end extended about a shank having a substantially cylindrical body and a longitudinal axis, the proximal head end and the distal insertion end are each provided with a single, exposed radial measurement plane which is perpendicular to the longitudinal axis, the radial measurement plane at the insertion end being formed by a freely exposed, flat bottom of a recess at the distal insertion end, wherein the recess is bounded by a first circumferential plane or surface which at a point of change transitions into a second circumferential plane or surface of the distal insertion end via a buckle, and wherein a sensor will be placed against the measurement plane at the proximal head end to measure the distance between the measurement planes, wherein the proximal head end has an proximal outer end plane oriented perpendicular to the longitudinal axis, wherein the measurement plane at the proximal head end is located on and formed by the proximal outer end plane.
22. (New) Threaded bolt according to claim 21, wherein the point of change from the first circumferential plane of the recess into the second circumferential plane is a sharp buckle shape.

23. (New) Threaded bolt according to claim 22, wherein the first and the second circumferential planes each have a first and a second normal, respectively, said first and second normals having directional components in a direction perpendicular to the longitudinal axis, said directional components being opposite to one another.

24. (New) Threaded bolt according to claim 21, wherein the first circumferential plane of the recess forms a conical surface which is oblique with respect to the longitudinal axis, the angle of which is maximally 75° with respect to the longitudinal axis, preferably also more than 45°.

25. (New) Threaded bolt according to claim 21, wherein the second circumferential plane is contiguous to the first circumferential plane of the recess and forms a conical surface oblique with respect to the longitudinal axis, the angle of which is maximally 45° with respect to the longitudinal axis.

26. (New) Threaded bolt according to claim 25, wherein the conical surface of the second circumferential plane at a proximal side changes into a third cylindrical plane via an angle which is oblique with respect to the longitudinal axis, preferably the angle is between 25-35°, which cylindrical plane is contiguously provided with the thread.

27. (New) Threaded bolt according to claim 21, wherein the distal insertion end of the bolt is truncated.

28. (New) Threaded bolt according to claim 21, wherein the recess has been formed by means of one single upsetting treatment of the insertion end.

29. (New) Threaded bolt according to claim 21, wherein said conical plane on said second circumferential plane has been obtained by means of a machining treatment.

30. (New) Threaded bolt according to claim 21, wherein the measurement plane on the distal insertion end has been arranged without final processing operation.

31. (New) Threaded bolt for use in ultrasonic measurement for determining the tension in the threaded bolt after it has been used in a connection having a proximal head end and a distal insertion end extended about a shank having a substantially cylindrical body and a longitudinal axis, the proximal head end and the distal insertion end are each provided with a single, exposed radial measurement plane which is perpendicular to the longitudinal axis, the radial measurement plane at the insertion end being formed by a freely exposed, flat bottom of a recess at the distal insertion end, wherein the recess is bounded by a first circumferential plane or surface which at a point of change transitions into a second circumferential plane or surface of the distal insertion end at an outermost portion of the distal insertion end, said outermost portion of the distal insertion end being formed by a circular line in a plane perpendicular to the longitudinal axis, and wherein a sensor will be placed against the measurement plane at the proximal head end to measure the distance between the measurement planes, wherein the proximal head end has an outermost proximal end plane oriented perpendicular to the longitudinal axis, wherein the measurement plane at the proximal head end is located on and formed by the outermost proximal end plane.

32. (New) Threaded bolt according to claim 31, wherein the point of change from the first circumferential plane of the recess into the second circumferential plane is a sharp buckle shape.

33. (New) Threaded bolt according to claim 32, wherein the first and the second circumferential planes each have a first and a second normal, respectively, said first and second normals having directional components in a direction perpendicular to the longitudinal axis, said directional components being opposite to one another.

34. (New) Threaded bolt according to claim 31, wherein the first circumferential plane of the recess forms a conical surface which is oblique with respect to the longitudinal axis, the angle of which is maximally 75° with respect to the longitudinal axis, preferably also more than 45° .

35. (New) Threaded bolt according to claim 31, wherein the second circumferential plane is contiguous to the first circumferential plane of the recess and forms a conical surface oblique with respect to the longitudinal axis, the angle of which is maximally 45° with respect to the longitudinal axis.

36. (New) Threaded bolt according to claim 35, wherein the conical surface of the second circumferential plane at a proximal side changes into a third cylindrical plane via an angle which is oblique with respect to the longitudinal axis, preferably the angle is between 25° - 35° , which cylindrical plane is contiguously provided with the thread.

37. (New) Threaded bolt according to claim 31, wherein the distal insertion end of the bolt is truncated.

38. (New) Threaded bolt according to claim 31, wherein the recess has been formed by means of one single upsetting treatment of the insertion end.

39. (New) Threaded bolt according to claim 31, wherein said conical plane on said second circumferential plane has been obtained by means of a machining treatment.

40. (New) Threaded bolt according to claim 31, wherein the measurement plane on the distal insertion end has been arranged without final processing operation.

41. (New) Threaded bolt having a proximal head end and a distal insertion end, said bolt having a longitudinal axis extending between both said ends, wherein the head end and the insertion end have been provided with radial measurement planes for use in ultrasonic length measurement for determining the tension in the threaded bolt after it has been placed in a connection, wherein the measurement plane at the insertion end has been formed by the flat bottom of a recess at the insertion end, wherein the recess is bounded by a circumferential wall, which - seen in cross-section- at the outermost distal end of the bolt at a point changes into the flank of

the insertion end via a buckle or curve, wherein the proximal head end has an outermost proximal end plane, wherein the measurement plane at the proximal head end is located on the outermost proximal end plane and wherein both measurement planes are perpendicular to the longitudinal axis.

42. (New) Threaded bolt according to claim 41, wherein the change from the circumferential wall of the recess into the flank runs according to a convex course.

43. (New) Threaded bolt according to claim 41, wherein the change from the circumferential wall of the recess to the flank has a sharp buckle shape.